

National Zinc Company Washington County Oklahoma



EPA Region 6
Congressional District 01

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EPA ID#OKD000829440
Site ID: 0601010

Other Name:
National Zinc, Zinc Corp of America

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Background

The National Zinc Corp. (NZC) site is located on West 11th and Virginia Streets, on the west side of Bartlesville, Washington County, Oklahoma. NZC operated a zinc smelter on this site from 1907 to 1976, when it was acquired by the Zinc Corporation of America. NZC was also known as Horsehead, Inc., and St. Joe Mineral. NZC began operations primarily to recover metals such as zinc, cadmium, and lead from industrial materials. NZC used smelting and chemical processing to recover the metals. In addition to the NZC smelter, a vanadium smelter (closed in the mid-1980s) and two other zinc smelters (closed in the 1920's) have operated on the land that presently encompasses the current Zinc Corporation of America facility. Zinc Corporation of America purchased NZC in 1987 and continued recovery operations. The NZC smelter had no air emission controls, allowing emissions to be deposited downwind in various areas in Bartlesville. ZCA itself is not included as part of the site. Blood lead studies funded by Agency for Toxic Substances and Disease Registry (ATSDR) and performed by Oklahoma State Department of Health (OSDH), (now ODEQ), in 1991 and 1992 indicated that approximately 14% of the children in the contaminated area had elevated levels of blood lead greater than 10 micrograms per deciliter (ug/dl).

The contaminants of concern are lead and cadmium in air dispersion and slag material contaminated soils.

The site area is a mixed residential, commercial, and industrial area. Approximately 5,000 people live within one mile of the site and 11,325 people live within two miles of the site.

The operable unit 1 (OU1) Record of Decision (ROD) which addresses residential and commercial properties was signed by the State of Oklahoma on December 13, 1994. The selected remedy included replacement of soil on residential properties and a combination of capping, replacement, tilling, and phosphate treatment at commercial properties. The OU2 ROD, which addressed ecological areas, was signed by the State of Oklahoma on October 2, 1996.

Current Status

- Site is under remediation by the Potential Responsible Parties (PRPs) under State, Oklahoma Department of Environmental Quality (ODEQ) oversight.
- Remaining actions were sampling and remediation on additional property owned by South Kansas and Oklahoma (SK&O) and Burlington Northern Santa Fe (BNSF) Railroad Right-of Way, and preparation of the final completion report. ODEQ completed negotiations with the current owner Watco and remediation was completed.
- Five-Year Remedy Reviews completed in 2001, 2006 and 2011 found the remedy protective of human health and the environment. The ODEQ completed the latest Five-Year Remedy Review

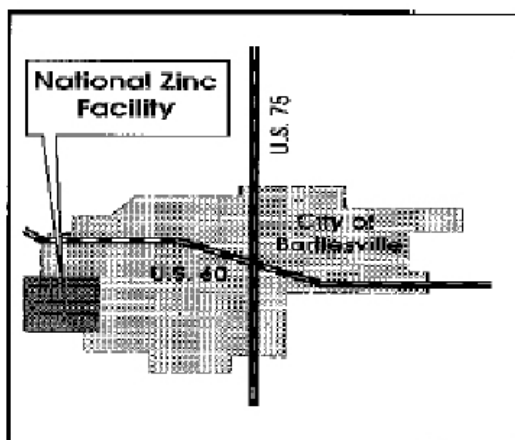
Benefits

- ## National Priorities Listing (NPL) History

The total volumes of these wastes are undetermined at this time.
(PPM = Parts Per Million)

Site Map

ZCA itself is not included as part of the site. Historical air emissions and slag material contaminated soils in the surrounding area with lead, cadmium and other heavy metals were investigated and remediated within a 3-mile radius.



Health Considerations

- Blood lead studies funded by Agency for Toxic Substances and Disease Registry (ATSDR) and performed by Oklahoma State Department of Health (OSDH), (now ODEQ), in 1991 and 1992 indicated that approximately 14% of the children in the contaminated area had elevated levels of blood lead greater than 10 micrograms per deciliter (ug/dl).
- The study revealed that children on the west side of Bartlesville, the side where the facility is located, had elevated levels of blood lead whereas the children on the east side did not.
- Blood lead level testing was performed on children in 1995 for the initial study and annually thereafter until 2000 on a volunteer basis for children from infancy to the age of five. The two-year study was completed in 2001. OSDH summarizes results of the blood lead level testing results compiled from 1995 through 2001. Any concentration 10 ug/dL and above is considered to be an elevated blood level. Using these criteria, no children with elevated blood levels were reported in 1998, 1999, 2000 or 2001.

Record of Decision (ROD)

OU1 Signed: December 13, 1994
OU2 Signed: October 2, 1996

- The operable unit 1 (OU1) Record of Decision (ROD) which addresses residential and commercial properties was signed by the State of Oklahoma on December 13, 1994.
- The selected remedy included: (1) replacement of soil on residential properties with greater than 925 ppm lead, 100 ppm cadmium, and 60 ppm arsenic; (2) Contaminated soil at commercial properties would be addressed through a combination of capping, replacement, tilling, and phosphate treatment.
- The OU2 ROD, which addressed ecological areas, was signed by the State of Oklahoma on October 2, 1996.
- The OU2 ROD called for excavating sediments contaminated with heavy metals in the upper reaches of the North Tributary. The North Tributary drains from the smelter property and flows into Eliza Creek. Ecological impacts in the lower portion of the North Tributary and Eliza Creek are expected to recover by natural processes once the sediment is removed from the upper reaches of the North Tributary near the smelter and after source control measures are implemented at the smelter.

Contacts

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